

12½" PORTABLE PLANER MODEL G8794 INSTRUCTION MANUAL



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Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemical are:

- Lead from lead-based paints.
- Crystalline silica from bricks, cement and other masonry products.
- Arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: Work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

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SECTION 1: SAFETY

AWARNING

For Your Own Safety Read Instruction Manual Before Operating This Equipment

The purpose of safety symbols is to attract your attention to possible hazardous conditions. This manual uses a series of symbols and signal words which are intended to convey the level of importance of the safety messages. The progression of symbols is described below. Remember that safety messages by themselves do not eliminate danger and are not a substitute for proper accident prevention measures.



Indicates an imminently hazardous situation which, if not avoided, <u>WILL</u> result in death or serious injury.

AWARNING

Indicates a potentially hazardous situation which, if not avoided, <u>COULD</u> result in death or serious injury.

ACAUTION

Indicates a potentially hazardous situation which, if not avoided, <u>MAY</u> result in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTICE

This symbol is used to alert the user to useful information about proper operation of the equipment.

AWARNINGSafety Instructions For Power Tools

- KEEP GUARDS IN PLACE and in working order.
- 2. REMOVE ADJUSTING KEYS AND WRENCHES. Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning on.
- **3. KEEP WORK AREA CLEAN**. Cluttered areas and benches invite accidents.
- 4. DON'T USE IN DANGEROUS ENVIRON-MENT. Don't use power tools in damp or wet locations, or where any flammable or noxious fumes may exist. Keep work area well lighted.

- 5. KEEP CHILDREN AND VISITORS AWAY. All children and visitors should be kept a safe distance from work area.
- **6. MAKE WORK SHOP CHILD PROOF** with padlocks, master switches, or by removing starter keys.
- DON'T FORCE TOOL. It will do the job better and safer at the rate for which it was designed.
- USE RIGHT TOOL. Don't force tool or attachment to do a job for which it was not designed.

AWARNING

Safety Instructions For Power Tools

9. USE PROPER EXTENSION CORD. Make sure your extension cord is in good condition. Conductor size should be in accordance with the chart below. The amperage rating should be listed on the motor or tool nameplate. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Your extension cord must also contain a ground wire and plug pin. Always repair or replace extension cords if they become damaged.

Minimum Gauge for Extension Cords

	LENGTH			
AMP RATING	25ft	50ft	100ft	
0-6	1118	16	16	
7-10	18	16	14	
11-12	16	16	14	
13-16	14	12	12	
17-20	12	12	10	
21-30	10	10	No	

- 10. WEAR PROPER APPAREL. Do not wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry which may get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair.
- 11. ALWAYS USE SAFETY GLASSES. Also use face or dust mask if cutting operation is dusty. Everyday eyeglasses only have impact resistant lenses, they are NOT safety glasses.
- 12. SECURE WORK. Use clamps or a vise to hold work when practical. It's safer than using your hand and frees both hands to operate tool.

- **13. DON'T OVERREACH.** Keep proper footing and balance at all times.
- **14. MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
- **15. DISCONNECT TOOLS** before servicing and changing accessories, such as blades, bits, cutters, and the like.
- **16. REDUCE THE RISK OF UNINTENTION- AL STARTING.** Make sure switch is in off position before plugging in.
- 17. USE RECOMMENDED ACCESSORIES.

 Consult the owner's manual for recommended accessories. The use of improper accessories may cause risk of injury.
- 18. CHECK DAMAGED PARTS. Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
- 19. NEVER LEAVE TOOL RUNNING UNAT-TENDED. TURN POWER OFF. Don't leave tool until it comes to a complete stop.

AWARNING

Additional Safety Instructions For The Portable Planer

- 1. Ensure that the machine is firmly secured to a bench or table before use.
- Always be aware of the condition of the wood you are planing. Pay particular attention to knots, splits, and other potential areas where the grain may be getting ready to separate.
- **3.** Perform machine inspection and maintenance services regularly.
- **4.** Make sure the planer knives are sharp, balanced, and set correctly and securely. Operate planer only with both knives in the cutterhead.
- **5.** Do not plane any man-made composites such as plywood, hardboard, particle board, fiber board, flake board, fiberglass and/or any other material other than solid, natural wood fiber.

- 6. Position yourself so as not to get caught (pinned) between the lumber and another obstruction during the planing operation. Also, ensure that there is sufficient clearance for the material being fed.
- 7. Keep hands and fingers away from moving parts and away from the infeed and outfeed section of the planer. Do not reach into the machine at any time for any reason without first turning the switch off, pulling the electrical plug and after the machine has come to a full stop.
- **8.** Any glued-up stock must be completely set up and dry before planing.
- **9.** Never leave the planer running unattended.
- 10. Habits good and bad are hard to break. Develop good habits in your shop and safety will become second-nature to you.

AWARNING

Like all power tools, there is danger associated with the Model G8794 Portable Planer. Accidents are frequently caused by lack of familiarity or failure to pay attention. Use this tool with respect and caution to lessen the possibility of operator injury. If normal safety precautions are overlooked or ignored, serious personal injury may occur.

WARNING

Operating this equipment has the potential to propel debris into the air which can cause eye injury. Always wear safety glasses or goggles when operating equipment. Everyday glasses or reading glasses only have impact resistant lenses; they are not safety glasses. Be certain the safety glasses you wear meet the appropriate standards of the American National Standards Institute (ANSI).

SECTION 2: CIRCUIT REQUIREMENTS

110V Operation

The Model G8794 is wired for 110/120V, single phase operation only. The 2 HP motor will draw 15 amps at 110V. If you operate this planer on any circuit that is already close to its capacity, it might blow a fuse or trip a circuit breaker. However, if an unusual load does not exist and a power failure still occurs, contact a qualified electrician or our service department.



Fusing

A 20-amp fuse or circuit breaker should be used when fusing this combination sander. Circuits rated any higher are not adequate to protect the motor from power surges.

Equipment returned to us for service that shows evidence of being over-fused will be repaired or replaced totally at the customer's expense, regardless of the present warranty status.



Extension Cords

If you find it necessary to use an extension cord with the Model G8794, make sure the cord is rated Hard Service (grade S) or better. Refer to the chart in the standard safety instructions to determine the minimum gauge for the extension cord. The extension cord must also contain a ground wire and plug pin. Always repair or replace extension cords when they become worn or damaged.



Grounding

In the event of an electrical short, grounding reduces the risk of electric shock by providing a path of least resistance to disperse electric current. This tool is equipped with a power cord having an equipment-grounding conductor. **See Figure 1.** The outlet must be properly installed and grounded in accordance with all local codes and ordinances.

WARNING

This equipment must be grounded. Verify that any existing electrical outlet and circuit you intend to plug into is actually grounded. If it is not, it will be necessary to run a separate 12 A.W.G. copper grounding wire from the outlet to a known ground. Under no circumstances should the grounding pin from any three-pronged plug be removed. Serious injury may occur.

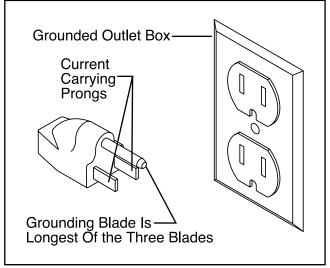


Figure 1. Grounded plug configuration.



SECTION 3: GENERAL INFORMATION

Commentary

Grizzly Industrial, Inc. is proud to offer the Model G8794 12½" Portable Planer. This planer is a part of Grizzly's growing family of fine machinery. When used according to the guidelines described in this manual, you can expect years of trouble-free, enjoyable operation and proof of Grizzly's commitment to customer satisfaction.

The Model G8794 is a wood planer designed for portable or small shop use. This planer features a 2 HP motor, four precision ground support columns, easy top-mounted depth adjustment, fold-down extension wings, a direct reading thickness gauge and a convenient carry handle.

We are also pleased to provide this manual with the G8794. It was written to guide you through assembly, review safety considerations, and cover general operating procedures. It represents our latest effort to produce the best documentation possible. If you have any criticisms that you feel we should pay attention to in our next printing, please write to us at the address below:

Grizzly Industrial, Inc.

c/o Technical Documentation
P.O. Box 2069
Bellingham, WA 98227-2069

Most importantly, we stand behind our machines. We have excellent regional service departments at your disposal, should the need arise. If, after reviewing this manual carefully, you have any service questions or parts requests, please call or write us at the location listed below.

Grizzly Industrial, Inc. 1203 Lycoming Mall Circle Muncy, PA 17756 Phone: 1-570-546-9663 FAX: 1-800-438-5901

E-Mail: techsupport@grizzly.com Web Site:http://www.grizzly.com The specifications, drawings, and photographs illustrated in this manual represent the Model G8794 as supplied when the manual was prepared. However, owing to Grizzly's policy of continuous improvement, changes may be made at any time with no obligation on the part of Grizzly. Whenever possible, though, we send manual updates to all owners of a particular tool or machine. Should you receive one, we urge you to insert the new information with the old and keep it for reference.

ACAUTION

To operate this, or any power tool, safely and efficiently, it is essential to become as familiar with its characteristics as possible. The time you invest before you begin to use your Model G8794 will be time well spent. DO NOT operate this machine until you are completely familiar with the contents of this manual. Make sure you read and understand all of the safety procedures. If you do not understand something, **DO NOT** operate the machine.



Unpacking

The Model G8794 12½" Planer is shipped from the manufacturer in a carefully packed carton. If you discover the machine is damaged after you've signed for delivery, *please call Customer Service immediately for advice*.

Save the containers and all packing materials for possible inspection by the carrier or its agent. Otherwise filing a freight claim can be difficult.

AWARNING

The G8794 is a relatively heavy machine (85 lbs. shipping weight). DO NOT over-exert yourself while unpacking or moving your machine – get assistance. In the event that your planer must be moved up or down a flight of stairs, be sure that the stairs are capable of supporting the combined weight of people and the machine. Serious personal injury may occur.

When you are completely satisfied with the condition of your shipment, you should inventory its parts.



Piece Inventory

After all the parts have been removed from the carton, you should have:

- Manual
- Planer
- · Chip Deflector
- Handle
- 8-10 mm Wrench
- Knife Gauge
- Hardware

Cap Screw M5-.8 x 20mm 1 Wing Nuts M5 2 Washers M5 2

In the event that any non-proprietary parts are missing (e.g. a nut or a washer), we would be glad to replace them, or, for the sake of expediency, replacements can be obtained at your local hardware store.



Clean up

The table surface has a protective film on it which must be peeled away. The cutterhead surfaces are coated with a waxy oil to protect them from corrosion during shipment. Remove this protective coating with a solvent cleaner or citrus-based degreaser such as Grizzly's G7895 Degreaser. The cutter knives are extremely sharp, use great caution when cleaning those areas. Avoid chlorine-based solvents as they may damage painted surfaces should they come in contact. Always follow the usage instructions on the product you choose for clean up.

ACAUTION

Many of the solvents commonly used to clean machinery can be highly flammable, and toxic when inhaled or ingested. Always work in well-ventilated areas far from potential ignition sources when dealing with solvents. Use care when disposing of waste rags and towels to be sure they do not create fire or environmental hazards. Keep children and animals safely away when cleaning and assembling this machine.

AWARNING

Do not use gasoline or other petroleum-based solvents to remove this protective coating. These products generally have low flash points which makes them extremely flammable. A risk of explosion and burning exists if these products are used. Serious personal injury may occur.

ACAUTION

The cutterhead knives on the G8794 planer are extremely sharp. Merely brushing your finger along the edge can result in a severe cut. Take extreme caution when doing any of the adjustments involving the cutterhead knives. Wear thick gloves anytime it is necessary to manually rotate the cutterhead assembly.

Site Considerations

The Model G8794 is designed to be portable. There is a carry handle located on the top of the planer, as well as handles on both sides of the planer to aid in lifting and moving. Before moving the planer, fold the extension wings up and ensure that the power cord is disconnected and stored beneath the wing on the cord storage loop.

- 1. Working Clearances: Consider existing and anticipated needs, size of material to be processed through each machine, and space for auxiliary stands, work tables or other machinery when establishing a location for your planer.
- 2. Lighting and Outlets: Lighting should be bright enough to eliminate shadow and prevent eye strain. Electrical circuits should be dedicated or large enough to handle amperage requirements. Outlets should be located near each machine so power or extension cords are clear of high-traffic areas. Observe local electrical codes for proper installation of new lighting, outlets, or circuits.



SECTION 4: ASSEMBLY

Chip Deflector

For your safety and proper machine operation, ensure that the chip deflector is secured before use. The chip deflector directs wood chips away from the cutterhead during operation and covers the cutterhead and feed rollers for operator safety. To secure the chip deflector:

- Align the chip deflector with the two bolts mounted at the exit side of the planer.
- Set chip deflector in place and use two wing nuts and washers to secure in place. See Figure 2.

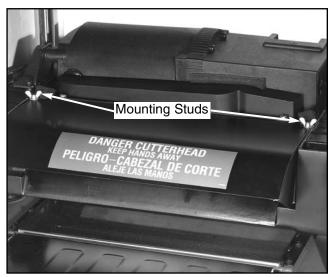


Figure 2. Chip deflector mounting studs.



Handle Assembly

Attach the handle assembly to the shaft protruding out of the top of the planer. Align the flat inside the handle bore with the flat on the shaft. Insert the M5-.8 x 20mm cap screw. Do not over tighten.



Figure 3. Mounting handle.



Mounting to Bench

The planer can be directly mounted to a bench or table top, or to a Shop Fox® Deluxe Tool Table for increased stability during planing. Use the mounting holes shown in **Figure 4**, using the appropriate fasteners.



Figure 4. Mounting hole location.



SECTION 5: CONTROLS

On-Off Switch

The on-off switch is located on the front of the planer. **See Figure 5.** The switch has a key which, when removed, allows the switch to be locked in the "off" position. To access the locking feature, push the switch to the OFF position and pull the switch key out. Should the key be removed when the planer is ON, it can still be turned OFF, but will not be able to be restarted until the key is replaced.



Figure 5. Location of switch and reset button.



Reset Button

The G8794 Planer comes equipped with a thermal overload protection switch which will trip if the motor builds up too high a level of heat. To reset the switch, turn the switch to the OFF position, wait a few seconds and then depress the reset button. **See Figure 5.** If the reset button does not stay depressed, wait longer before resetting to allow the machine to cool down.

Depth-Of-Cut

The planing depth is controlled by the crank handle on top of the planer. Turning the handle clockwise raises the cutterhead and counter-clockwise lowers the cutterhead. **See Figure 6.** Depth-of-cut is read directly from the inch/millimeter scale located on the top, right side of the planer. One complete turn of the handle raises or lowers the cutterhead approximately 5%4" (2mm). The range of material thickness that can be planed is 3/16" - 6" (5mm - 1152mm).

The maximum depth-of-cut varies according to the hardness of the wood and how wide the board is being passed under the cutterhead. Generally we recommend a maximum depth of ½2". A series of light cuts will give a better end result than trying to take off too much material in a single pass, plus there is less strain on the motor.



Figure 6. Depth-of-cut handle and indicator.



SECTION 6: ADJUSTMENTS

Extension Wings

Your planer is equipped with front and rear extension wings. Each wing folds up for machine mobility and down for machine operation. To check alignment, lay a straightedge across the bed and wings. **See Figure 7.**

If adjustment is necessary, proceed as follows:

- Use the 10mm wrench and loosen the locking nuts and set bolts underneath each extension wing.
- 2. Hold a straightedge across the bed and wing and turn the adjustment bolts so the end of the wing is flush with the straightedge.

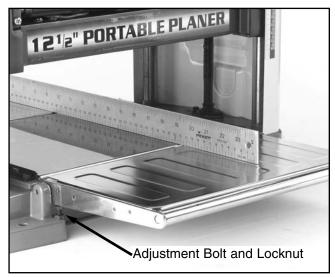


Figure 7. Aligning extension wings.

- 3. Move the straightedge across the width of the table and repeat step two. Re-check to ensure consistency from side to side. Without turning the set bolts, tighten the lock nuts.
- **4.** To adjust the second wing, repeat steps one through three above.

Knife Setting

The G8794 Planer is equipped with a 2 blade cutterhead. The blades are locked in position by a knife locking bar with seven bolts angled to put pressure on the assembly when they are tightened. A set of two springs under each blade pushes up to keep the blade portion exposed. The knife setting gauge is used to push down on the blade to set it to the proper height. Disconnect the power cord from the power source before adjusting or removing the knives.

To remove the knives:

- **1.** Lower cutterhead to provide access to knives from the top.
- 2. Remove chip deflector.
- 3. Use the 8mm end of the wrench to loosen the bolts in the knife locking bar. Turn clockwise to loosen bolts and free the knife! (See Figure 8)
- **4.** Slide knife out of cutterhead. Use care when handling knives they are sharp!
- 5. Repeat steps three and four above to

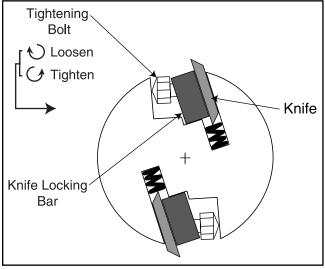


Figure 8. Turn tightening bolt clockwise to loosen.

remove second knife.
To install and adjust the knives:

 Make sure the two springs in the knife groove are in position. If the knife locking bar was removed, make certain it is reinserted with the bolts oriented as shown in

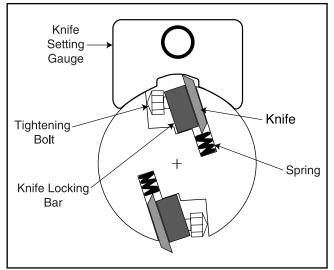


Figure 9. Side view of cutterhead and gauge.

Figure 9.

- 2. Insert the knife into the space between the cutterhead and the locking bar. Make sure the knife's bevel side is against cutterhead.
- 3. Position knife setting gauge on the cutter-



Figure 10. Knife gauge positioned on cutterhead.

head. See Figure 10.

4. While holding the knife setting gauge with one hand so it sits firmly on the cutterhead,

turn the tightening bolts counterclockwise with the other hand. Tighten the seven bolts until they begin to contact the side of the groove. Then tighten further, starting with the bolts at the center and working toward the outer ones. Once they are tight enough to hold the knife in position, remove the gauge.

- 5. Do a final tightening of each bolt. Recheck with the setting gauge to make certain the knife did not move. The knife tip should be just touching the top of the arc of the gauge as shown in Figure 10.
- **6.** Repeat **Steps 1** through **5** above to set the second knife.
- 7. Remove all tools and install chip deflector.



AWARNING

Make sure the G8794 is unplugged or disconnected from the power source and moving parts have come to a complete stop before investigating any problems or performing any maintenance or adjustments. Serious personal injury may occur.

ACAUTION

The cutterhead knives on the G8794 planer are extremely sharp. Merely brushing your finger along the edge can result in a severe cut. Take extreme caution when doing any adjustments involving the cutterhead knives. Wear thick gloves anytime it is necessary to manually rotate the cutterhead assembly.

NOTICE

Never run the planer with only one knife installed in the cutterhead. This will cause a severe imbalance condition at the high speed at which the cutterhead rotates. Always install both knives and make certain they are tightly secured. When resharpening, always have both knives sharpened as a set.

SECTION 7: OPERATIONS

Test Run

Once assembly is complete and adjustments are done to your satisfaction, you are ready to test the machine. Make certain you have removed any tools or gauges used in the adjustment or assembly process from the bed of the planer.

Plug the planer in and make sure the power supply is on at the main panel. With the locking key inserted, move the toggle switch to the ON position. Make sure that your finger is poised to flip the switch to the OFF position, just in case there's a problem. The planer should run smoothly, with little or no vibration or rubbing noises. Strange or unnatural noises should be investigated and corrected before operating the machine further.

If you cannot easily locate the source of an unusual noise or vibration, feel free to contact our service department for help.



AWARNING

Make sure the G8794 is unplugged or disconnected from the power source and moving parts have come to a complete stop before investigating any problems or performing any maintenance or adjustments. Serious personal injury may occur.

Planing Tips

- Inspect your lumber for twist or cup and surface one face on a jointer if necessary.
- Scrape all glue off when planing laminated stock.
- Plane boards of equal thicknesses when planing multiples.
- Remove only ½32" to ½6" (.8mm to 1.6mm) of material on each pass. Remove less material al in each pass when planing wide or dense stock.
- Support lumber on both ends. Get assistance if planing long lumber, or use roller stands.
- Measure workpiece with calipers to get exact results.
- Check surface of workpiece for any irregularities.
- Plane equal amounts on each side of the board to reduce the chance of warpage.
- Use entire width of planer to wear knives evenly.
- Surface wood with the grain. Never feed any end cut or end grained wood through the machine.



Wood Types

The species of wood, as well as its condition, have a dramatic effect on planing ability. The harder the wood (as illustrated by its shear strength), the more difficult it will be to plane.

Commonly used hardwoods and their associated shear strengths are illustrated in **Figure 11**. High shear means difficult planing.

A	Type SI	near (PSI)
	Black Locust	2,480
	Sugar Maple	2,330
_ 	Pecan Hickory	2,080
Increasing Difficulty	White Oak	2,000
2 2	White Ash	1,950
Ħ	Black Cherry	1,700
	American Elm	1,510
	Black Walnut	1,370
	Red Alder	1,080
	Basswood	980
	Cottonwood	930

Figure 11. Common hardwood shear strengths.

Similarly, common softwood shear strengths are displayed in **Figure 12.**

A	Type She	ear (PSI)
Increasing Difficulty	Western Larch Tamarack Douglas Fir Alaska Cedar Sitka Spruce Sugar Pine Cypress Redwood (OG) Red Cedar	1,410 1,280 1,160 1,130 1,150 1,050 1,000 940 860
	White Pine Balsam Fir	850 710

Figure 12. Common softwood shear strengths.



Wood Characteristics

The species of wood, as well as condition, will affect planing ability. The harder the wood, the more difficult it will be to plane. We've included below, a list of wood characteristics you may encounter when planing. The following descriptions of defects will give you some possible answers to problems you may encounter while planing different materials. Possible solutions follow the descriptions.

Chipped Grain - usually a result of cutting against the grain, or planing wood with knots or excessive amount of cross grain. Chipped grain can also be caused by dull knives. Often, chipped grain can be avoided by taking shallow cuts. If those options do not work, inspect your lumber and determine if its grain pattern is causing the problem. If the wood does not show substantial crossgrain, inspect your knives for sharpness.

Fuzzy Grain - Usually caused by surfacing lumber with too high a moisture content. Sometimes fuzzy grain is a characteristic of some woods, such as basswood. Fuzzy grain can also be caused by dull knives or an incorrect grinding bevel. Check with a moisture meter. If moisture is greater than 20%, sticker the wood and allow to dry. Otherwise, inspect knife condition.

Glossy Surface - Usually caused by dull knives taking shallow cuts at a slow feed speed. Surface gloss will usually be accompanied by overheating. Often, lumber will be scorched and eventually, damage to knives will occur.

Snipe - Occurs when board ends have more material removed than the rest of the board. Usually caused when the workpiece is not properly supported as it goes through the machine. However, a small amount of snipe is inevitable. The best way to deal with snipe is by planing lumber longer than your intended work length and then cutting off the excess after planing is completed.

Wavy Surface - Caused by poor knife height adjustment, wavy surface appears when one knife is taking deeper cuts than the rest of the knives. Recheck or reset knife height with the gauge.

Pitch & Glue Build-up - Glue and resin build-up on the rollers and cutterhead will cause overheating by decreasing cutting sharpness while increasing drag in the feed mechanism. The result can include scorched lumber as well as uneven knife marks and chatter.

Chip Marks or Indentations - Chip indentation or chip bruising is the result of wood chips not being thrown away from the cutterhead and out of the dust chute. Instead they are carried around the cutterhead, deposited on the planed surface and crushed by the outfeed roller. Chip indentations can be caused by a number of reasons, some of which are:

- **1.** The type of lumber being planed. Certain species have a tendency to chip bruise.
- 2. A high moisture content (over 15%) and/or surface moisture. Typically found in airdried stock where the surface is dry but the inside needs a longer time to season.
- 3. Dull knives.
- **4.** Too much material being removed in one pass.
- 5. Improper knife cutting angle.

Possible Solutions:

- Lumber must be completely dry, preferably kiln-dried (KD). Air-dried (AD) lumber must be seasoned properly and have no surface moisture. Do not surface partially-air-dried (PAD) lumber.
- 2. Make sure planer knives are sharp.
- 3. Remove less material per pass.
- Use a smaller cutting angle or a double bevel grind (consult a reputable knife grinder).



Storing Power Cord

The underside of the outfeed extension wing contains a convenient cord storage area. Just fold the wing up, and wrap the cord around the storage wires to keep the cord neatly stowed until the next use of this portable planer.



Figure 13. Convenient cord storage.



SECTION 8: MAINTENANCE

General

Regular periodic maintenance on your Model G8794 Planer will ensure its optimum performance. Make a habit of inspecting your planer each time you use it. Check for the following conditions and repair or replace when necessary:

- Loose mounting bolts, extension wings, or handles, or excessive play in the depth-ofcut adjustment.
- · Worn switch.
- Worn or damaged cords or plugs.
- Dull or damaged cutterhead knives.
- Any condition that could hamper the safe operation of the machine.



CAUTION

The cutterhead knives on the G8794 planer are extremely sharp. Merely brushing your finger along the edge can result in a severe cut. Take extreme caution when doing any of the adjustments involving the cutterhead knives. Wear thick gloves anytime it is necessary to manually rotate the cutterhead assembly.

NOTICE

Never run the planer with only one knife installed in the cutterhead. This will cause a severe imbalance condition at the high speed at which the cutterhead rotates. Always install both knives and make certain they are tightly secured. When resharpening, always have both knives sharpened as a set.

Knife Sharpening

Knife sharpness is one of the most important factors in getting good results with the planer. Knives can be made to last a long time if care is taken in checking the condition of the wood which is put into the machine. The biggest problem will come from wood with nails or other metal embedded. This will nick or chip the knives and can require a complete regrinding. Another wear factor is sand, grit, or other dirt on the surface of the wood which the knives have to cut through. Simply laying a board on a concrete floor can embed enough abrasive material to severely damage the knives. At the speed the cutterhead is rotating, these types of surface contamination can have a very abrasive effect.

This planer has knives with a grind angle of 40° which is a configuration which should suit most general planing needs. The optimal grind or bevel angle is a compromise between effective cutting (the smaller the angle the better the cutting action) and edge life where the larger the angle the more the edge is supported, thus the longer it will last.

For the best results it is best to have planer knives sharpened by a professional sharpening service which has the grinding and measurement equipment to assure that the knife cutting geometry is maintained at optimum levels. It is a procedure which requires some care and precision, otherwise a set of blades can be easily ruined. Knives should always be ground as a set so they can be properly matched. Unequal material removal can result in an unbalanced cutterhead which can affect not only planing surface quality but ultimately the life of the cutterhead bearings.

Please refer to Section 6 Adjustments - Knife Setting for complete detail on the removal and reinstallation of planer knives.



Motor

Keep the motor as clean as possible. Prevent any water, oil or wood chips from penetrating inside the motor. Be sure to clean the machine after every use.

The bearings inside the motor are also shielded and lubricated for the life of the bearing and require no routine maintenance.

This motor is equipped with long life carbon brushes. However, brush life expectancy is affected by motor loading. Planing very wide, dense boards or cutting too deep will reduce brush life. Check brushes after every ten to fifteen hours of operation. **See Figure 14.** When the



Figure 14. Brush holder location.

brushes are worn down to ½" (6mm), it is time for replacement. When checking brushes, be sure to replace each brush in the same position and the same location that it came from. When replacing old brushes, be sure to replace both brushes at the same time.



V-Belt

The cutterhead is driven by a flat rubber V-belt located on the right side of the motor and cutterhead assembly (when facing the front of the machine). The belt is a durable long life belt, however eventually it may require replacement:

- Remove the depth-of-cut handle and the four Allen® head screws on the top cover.
 Pull the cover off and the sides are then free to be removed.
- Remove the Belt Guard Cover. This piece just snaps into two grooves. Squeeze the top of the cover slightly and pull up to remove. See Figure 15.
- **3.** "Roll off" the old belt toward the side of the elevation screw.
- 4. Loop the new belt so that it completely surrounds the motor pulley but with only half the "vees" engaged. Start the lower portion on the underside of the cutterhead pulley and slowly rotate the motor pulley with your free hand.
- 5. By pushing on the edge of the belt and slowly turning the pulleys by hand, you can force the belt over until all the "vees" of the belt are in alignment with the "vees" on the pulley.
- **6.** Replace the belt guard, sides, cover and handle.

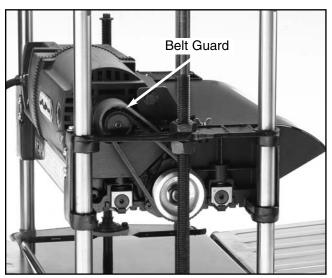


Figure 15. Belt pulleys and guard.

Feed Rollers

The feed rollers rotate in bushing blocks that are spring-loaded. The feed rollers ride up on the board so roller pressure is maintained. If chips or sawdust build up between the bracket and bushing block, the amount of roller vertical travel will be reduced. **See Figure 16.**

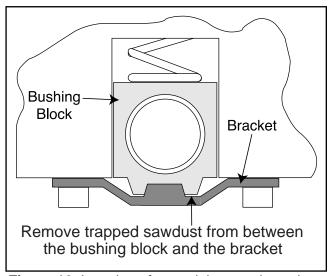


Figure 16. Location of potential trapped sawdust.

Periodically check and clean chips and sawdust from between the bushing blocks and brackets. Remove the side covers from the Planer by removing the depth-of-cut handle on top, and then remove the four Allen® head screws holding the cover. Lift the top cover off, then remove the sides. This provides easy access to depress the rollers so that chips and sawdust can be easily removed:

- Place a 3-4" high block of wood between one of the feed rollers and the planer bed. Ensure that the block of wood is not under the cutterhead.
- 2. Lower the cutterhead assembly down just enough so that the roller is pushed up against the spring and pressure is off of the two brackets.
- **3.** Remove any trapped material from between the roller assembly and bracket.
- **4.** Raise the cutterhead assembly and remove the block of wood.

- **5.** Repeat **Steps 1** through **4** for the other feed roller.
- **6.** Replace the sides, cover and depth-of-cut handle.



Lubrication

There are two primary points requiring periodic lubrication; the head elevation screws and the feed roller chain drive. Access for lubrication requires removing the cover and sides of the machine first. Remove the depth-of-cut handle and the four Allen® head screws on the top cover. Pull the cover off and the sides are then free to be removed. **See Figure 17.**

The elevation screws on each side of the machine should be coated with a light grease to lubricate the threads. The chain drive can be lubricated with a spray oil. Saturate each chain link, then wipe off the excess so that sawdust will not be attracted.

Replace the sides, cover and handle when complete.

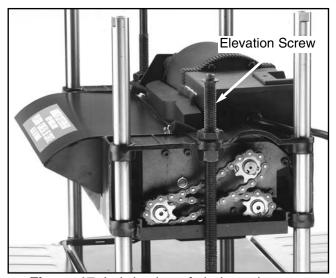


Figure 17. Lubrication of chain and screw.



SECTION 9: CLOSURE

The following pages contain parts diagrams / lists, general machine data and Warranty/Return information for your Model G8794 12½" Planer.

If you need parts or help in assembling your machine, or if you need operational information, we encourage you to call our Service Department. Our trained service technicians will be glad to help you.

If you have comments dealing specifically with this manual, please write to our Bellingham, Washington location using the address in the General Information section. The specifications, drawings, and photographs illustrated in this manual represent the Model G8794 as supplied when the manual was prepared. However, due to Grizzly's policy of continuous improvement, changes may be made at any time with no obligation on the part of Grizzly. Whenever possible, though, we send manual updates to all owners of a particular tool or machine. Should you receive one, add the new information to this manual and keep it for reference.

We have included some important safety measures that are essential to this machine's operation. While most safety measures are generally universal, Grizzly reminds you that each workshop is different and safety rules should be considered as they apply to your specific situation.

We recommend you keep a copy of our current catalog for complete information regarding Grizzly's warranty and return policy. If you need additional technical information relating to this machine, or if you need general assistance or replacement parts, please contact the Service Department listed in Section 3: General Information.

Additional information sources are necessary to realize the full potential of this machine. Trade journals, woodworking magazines, and your local library are good places to start.

AWARNING

As with all power tools, there is danger associated with the Model G8794 12½" Portable Planer. Use the tool with respect and caution to lessen the possibility of mechanical damage or operator injury. If normal safety precautions are overlooked or ignored, serious personal injury may occur.

AWARNING

The Model G8794 was specifically designed for planing operations. DO NOT MODIFY AND/OR USE THIS PLANER FOR ANY OTHER PURPOSE. Modifications or improper use of this tool will void the warranty. If you are confused about any aspect of this machine, DO NOT use it until you have answered all your questions. Serious injury may occur.





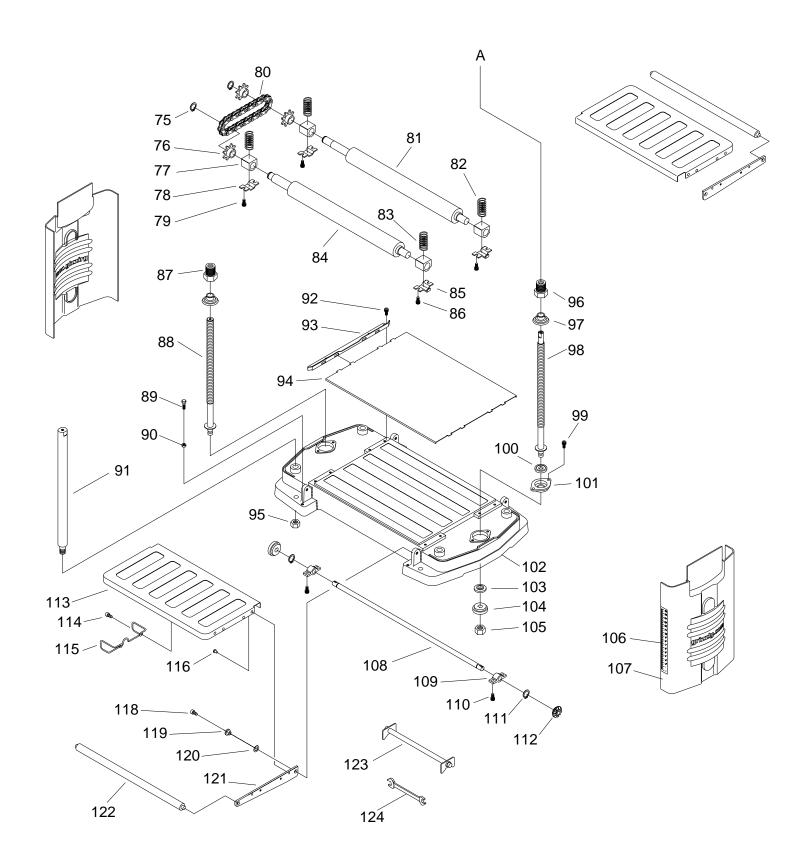
MACHINE DATA SHEET

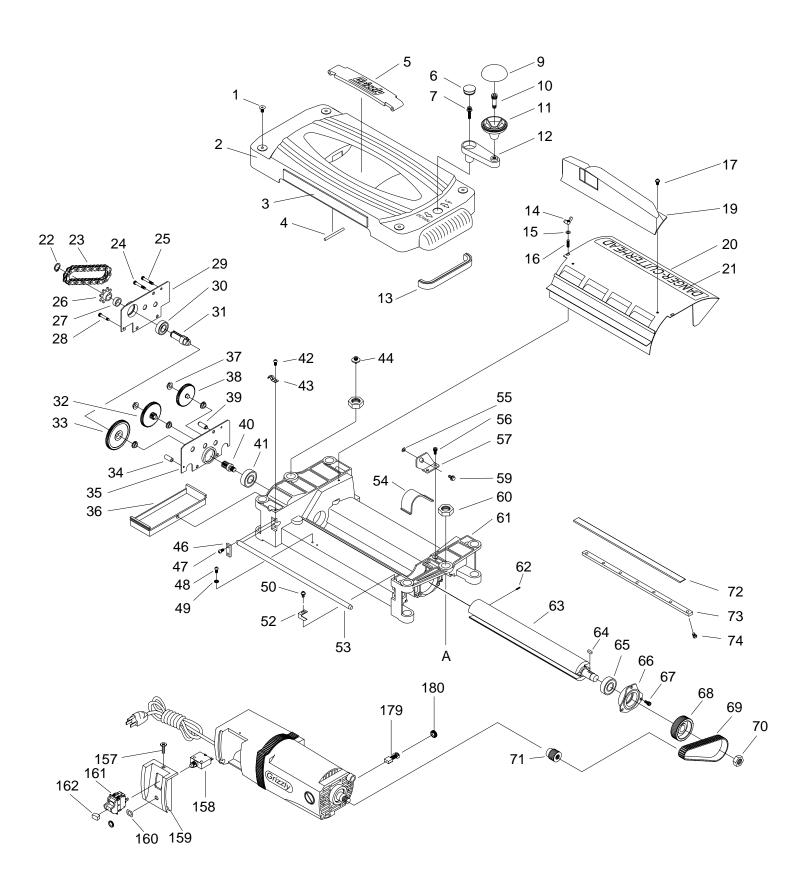
Customer Service #: (570) 326-3806 • To Order Call: (800) 523-4777 • Fax #: (800) 438-5901

GRIZZLY MODEL G8794 121/2" PLANER

Design Type	Bench Model
Overall Dimensions:	
Table Size	9%" x 12½"
	6 ³ / ₄ " x 12 ¹ / ₂ "
	18¾" with Knob
	235%"
	22"
	85 lbs.
	75 lbs.
	21½" x 12¾"
	2 / 12½" L x 1/16" W x 3/4" H, Double Edged
Capacities:	
Maximum Depth of Cut	
	12½"
	3/16"
	6"
	17/8" (48mm)
	8540 RPM
	17,080
•	57
	25 FPM
	6"
Construction:	
	Steel/ Cast Aluminum
	Rubber
	Stamped Steel w/1 Roller
	Shielded & Lubricated Ball Bearings
	Steel
Motor:	
	Universal Fan-Cooled
• •	2HP
	Single Phase / 110V
S .	15
	60 Hertz / 18,000 RPM
	On / Off Safety Toggle
	Belt Drive
	Shielded & Lubricated Ball Bearings
Features:	go
	Fold-down Extension Tables
	Top Mounted Depth Adjustment
	Thermal Overload Protection
	Oonvonient Carry Handle

Specifications, while deemed accurate, are not guaranteed.





Ref#	Part#	Description
001	P8794001	FLAT HD SCR M6XP1.0X16L
002	P8794002	TOP COVER
003	P8794003	WARNING LABEL
004	P8794004	DOWEL PIN
005	P8794005	HANDLE
006	P8794006	CAP
007	P8794007	FLANGE BOLT M58 X 25MM
009	P8794009	HANDLE CAP
010	P8794010	HANDLE BOLT M8 (SPECIAL)
011	P8794011	HANDLE BASE
012	P8794012	HANDLE, CRANK
013	P8794013	PROTECTIVE STRIP
014	P8794014	WING NUT M58
015	PW02M	FLAT WASHER M5
016	PSB24M	CAP SCREW M58 X 16
017	PS08M	PHLP HD SCR M58 X 12 .
018	PW02M	FLAT WASHER M5
019	P8794019	AIR MANIFOLD
020	P8794020	DUST CHUTE
021	P8794021	WARNING LABEL
022	P8794022	C-EXT RET RING STW15
023	P8794023	CHAIN #410-26
024	P8794024	CAP SCREW M58 X 35MM
025	P8794025	CAP SCREW M58 X 27MM
026	P8794026	SPROCKET
027	P8794027	SPACER
028	P8794028	CAP SCREW M58 X 30MM
029	P8794029	OUTSIDE COVER
030	P6002	BALL BEARING 6002
031	P8794031	SHAFT
032	P8794032	GEAR (INTERMEDIATE) 58T+12T
033	P8794033	GEAR (LARGE) 70T
034	P8794034	SPACER
035	P8794035	INSIDE COVER
036	P8794036	COVER
037	P8794037	BUSHING
038	P8794038	GEAR (SMALL) 52T+12T
039	P8794039	SPACER UNDERCUT
040	P8794040	PINION GEAR
041	6203	BALL BEARING 6203
042	P8794042	PAN HD SCR M58 X 12MM
043	P8794043	CABLE CLAMP
044	P8794044	FLANGE BOLT M6-1.0 X 10MM
046	P8794046	PLATE
047	P8794047	PAN HD SCR M58 X 12MM
048	P8794048	PAN HD SCR M58 X 8MM
049	P8794049	EXT TOOTH WASHER M5
050	P8794050	FLANGE BOLT M58 X 12MM

Ref#	Part#	Description
052	P8794052	POINTER
053	P8794053	MOTOR PIVOT ROD
054	P8794054	BELT GUARD
055	PW01M	FLAT WASHER 8MM
056	P8794056	HEX SOC HD SCR M5XP0.8X12L
057	P8794057	BRACKET
059	P8794059	FLANGE BOLT M8-1.25 X 16MM
060	P8794060	HEX LOW NUT M20-1.0
061	P8794061	UPPER FRAME
062	P8794062	SPRING 0.4 X 4 X 10MM
063	P8794063	CUTTERHEAD
064	P8794064	KEY 5 X 12MM
065	P6203	BALL BEARING 6203
066	P8794066	BEARING RETAINER
067	PSB33M	CAP SCREW M58 X 12
068	P8794068	CUTTERHEAD PULLEY
069	P8794069	BELT 135J
070	P8794070	HEX NUT M16 X 22
071	P8794071	MOTOR PULLEY
072	P8794072	KNIVES
073	P8794073	KNIFE LOCK BAR
074	P8794074	KNIFE LOCK SCREW
075	P8794075	C-EXT RET RING STW15
076	P8794076	SPROCKET
077	P8794077	BEARING BLOCK
078	P8794078	RETAINER(L.H.)
079	P8794079	HEX SOC HD SCR M5XP0.8X12L
080	P8794080	CHAIN #410-26
081	P8794081	OUTFEED ROLLER
082	P8794082	SPRING (OUTFEED) 2.2X18X36.5L
083	P8794083	SPRING (INFEED) 2.2X18X29L
084	P8794084	INFEED ROLLER
085	P8794085	RETAINER(R.H.)
086	PSB33M	CAP SCREW M58 X 12MM
087	P8794087	ELEVATING NUT (L.H.)
088	P8794088	SPINDLE (L.H.)
089	PB08M	HEX BOLT M6-1 X 20MM
090	PN01M	HEX NUT M6-1.0
091	P8794091	POST
092	PSB33M	CAP SCREW M58 X 12
093	P8794093	GUIDE
094	P8794094	PLATEN
095	PN09M	HEX NUT M12-1.75
096	P8794096	ELEVATING NUT (R.H.)
097	P8794097	воот
098	P8794098	SPINDLE (R.H.)
099	PSB33M	CAP SCREW M58 X 12
100	P8794100	THRUST BEARING

Ref# Part# Description

		_ 000p
101	P8794101	RETAINER
102	P8794102	BASE
103	P8794103	THRUST BEARING
104	P8794104	GEAR
105	PN08M	HEX NUT M10-1.25
106	P8794106	SCALE
107	P8794107	SIDE COVER
108	P8794108	SHAFT
109	P8794109	SUPPORT
110	PSB33M	CAP SCREW M58 X 12MM
111	P8794111	C- EXT RET RING STW10
112	P8794112	GEAR
113	P8794113	INFEED/OUTFEED TABLE
114	P8794114	CHEESE HD SCR M4-0.7 X 8MM
115	P8794115	CORD WRAP
116	P8794116	CHEESE HD SCR M4-0.7 X 6MM
118	P8794118	CHEESE HD SCR M6-1.0 X 16MM
119	P8794119	TABLE BUSHING
120	P8794120	SPRING WASHER
121	P8794121	TABLE SUPPORT
122	P8794122	ROLLER
123	P8794123	KNIFE GAGE
124	PWR810	8 X 10 WRENCH
157	P8794157	SCREW
158	P8794158	RESET SWITCH
159	P8794159	SWITCH MOUNTING PLATE
160	P8794160	PLATE, RESET SWITCH
161	P8794161	TOGGLE SWITCH
162	P8794162	SWITCH LOCK
179	P8794179	MOTOR BRUSH
180	P8794180	BRUSH CAP

TROUBLESHOOTING

This section covers the most common machine problems encountered in planing and what to do about them. Refer also to Section 7: Operations, Wood Characteristics for additional guidelines on processing problems. Do not make any adjustments until planer is unplugged and moving parts have come to a complete stop.

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
Motor will not start.	Low voltage. Open circuit in motor or loose connections.	Check power line for proper voltage. Inspect all lead connections on motor for loose or open connections.
Motor will not start; fuses or circuit breakers blow.	Short circuit in line cord or plug. Short circuit in motor or loose connections. Incorrect fuses or circuit breakers in power line.	worn insulation.
Motor overheats.	Motor overloaded. Air circulation through the motor restricted.	Reduce depth of cut. Clean out motor to provide normal air circulation.
Motor stalls (resulting in blown fuses or tripped circuit).	Short circuit in motor or loose connections. Low voltage. Incorrect fuses or circuit breakers in power line. Motor overloaded.	 Inspect connections on motor for loose or shorted terminals or worn insulation. Correct the low voltage conditions. Install correct fuses or circuit breakers. Reduce load on motor.
Motor arcing visibly through vents or runs erratically.	Brushes sticking. Brushes worn.	 Check that brush holder is free of dirt and that brush moves freely. Replace both brushes.
Machine slows when operating.	Depth of cut too great. Brushes worn.	Reduce depth of cut. Replace both brushes.
Machine is loud when cutting. Overheats or bogs down in the cut.	·	 Decrease depth of cut. Sharpen blades. Recheck complete blade installation and tighten all screws. Replace belt. Inspect by qualified electrical technician.
Planer starts, but cutterhead does not move.	Worn or broken belt.	Replace belt.
Planer starts, cutterhead turns, no cut.	Blade not extending far enough. Belt worn or slipping.	Increase depth of cut. Replace belt.
Loud, repetitious noise coming from machine	 Blades are dull. Excessive depth of cut. Cutting against natural wood grain. High wood moisture content. 	 Sharpen blades. Decrease depth of cut. Reverse cutting direction. Dry wood.
Cannot control snipe.	Long or heavy board sags as it enters and exits.	Lift up on unsupported end of board as it enters and exits cutterhead.

WARRANTY AND RETURNS

Grizzly Industrial, Inc. warrants every product it sells for a period of **1 year** to the original purchaser from the date of purchase. This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence, accidents, repairs or alterations or lack of maintenance. This is Grizzly's sole written warranty and any and all warranties that may be implied by law, including any merchantability or fitness, for any particular purpose, are hereby limited to the duration of this written warranty. We do not warrant or represent that the merchandise complies with the provisions of any law or acts unless the manufacturer so warrants. In no event shall Grizzly's liability under this warranty exceed the purchase price paid for the product and any legal actions brought against Grizzly shall be tried in the State of Washington, County of Whatcom.

We shall in no event be liable for death, injuries to persons or property or for incidental, contingent, special, or consequential damages arising from the use of our products.

To take advantage of this warranty, contact us by mail or phone and give us all the details. We will then issue you a "Return Number", which must be clearly posted on the outside as well as the inside of the carton. We will not accept any item back without this number. Proof of purchase must accompany the merchandise.

The manufacturers reserve the right to change specifications at any time because they constantly strive to achieve better quality equipment. We make every effort to ensure that our products meet high quality and durability standards and we hope you never need to use this warranty.

Please feel free to write or call us if you have any questions about the machine or the manual.

Thank you again for your business and continued support. We hope to serve you again soon.

WARRANTY CARD

Nan	ne				
Stre	et				
City	·			State_	Zip
Pho	ne Number	E-Mail		FAX	
МО	DEL # G8794 12½" Por	table Planer_ Order #	‡		
The f		veluntem, besie 14 will be weed for a		www.coo.to below to develop better	r products and services. Of
	ollowing information is given on a se, all information is strictly confident	voluntary basis. It will be used for n ential.	narketing	purposes to neip us develop better	products and services. Of
	,				
_					
1.	How did you learn about us?				
	Advertisement	Friend	10.	Which benchtop tools do you own?	Check all that apply.
	Catalog	Card Deck		411 401 B 11 0	01 01 0 1
	World Wide Web			1" x 42" Belt Sander 5" - 8" Drill Press	6" - 8" Grinder Mini Lathe
	Other			8" Table Saw	10" - 12" Thickness Planer
				8" - 10" Bandsaw	Scroll Saw
2.	Which of the following magazines of	do you subscribe to.		Disc/Belt Sander Mini Jointer	Spindle/Belt Sander
	American Woodworker	Practical Homeowner		Mini Jointer	
	Cabinetmaker	Shop Notes		Other	
	Family Handyman	Today's Homeowner	11.	How many of the machines checked	d above are Grizzly?
	Fine Homebuilding Fine Woodworkina	WOOD Wooden Boat		flow many of the machines checked	above are drizzly:
	Home Handyman	Woodshop News	12.	Which portable/hand held power too	ols do you own? Check all that apply.
	Journal of Light Construction	Woodsmith		Dalt Canadan	Out it al. 0 and an
	Old House Journal Popular Mechanics	Woodwork Woodworker		Belt Sander Biscuit Joiner	Orbital Sander Palm Sander
	Popular Science	Woodworker's Journal		Circular Saw	Portable Planer
	Popular Woodworking	Workbench		Detail Sander	Saber Saw
	Other			Drill/Driver Miter Saw	Reciprocating Saw Router
				iviitei Saw	noutei
3.	Which of the following woodworking	g/remodeling shows do you watch?		Other	
	Backyard America	The New Yankee Workshop	13.	What machines/supplies would you	like Grizzly Industrial to carry?
	Home Time	This Old House		1011 7 1 1 0	5 "
	The American Woodworker	Woodwright's Shop		12" Table Saw 12" Jointer	Radial Arm Saw Panel Saw
	Other			Combination Planer/Jointer	Brass Hardware
4.	What is your annual household inco	ome?		Paint & Finishing Supplies	Lumber
т.	What is your armual mousehold me	one:		Contractor's Supplies	
	\$20,000-\$29,999	\$60,000-\$69,999		Other	
	\$30,000-\$39,999	\$70,000-\$79,999			
	\$40,000-\$49,999 \$50.000-\$59.999	\$80,000-\$89,999 \$90.000 +	14.	What new accessories would you like	ce Grizzly Industrial to carry?
		\$50,000 +		Builders Hardware	Hand Tools
5.	What is your age group?			Fasteners	Wood Components
	20-29	50-59		Other	
	30-39	60-69			
	40-49	70 +	15.	What other companies do you purch	nase your tools and supplies from?
6.	How long have you been a woodw	orker?			
	0 - 2 Years	8 - 20 Years			
	0 - 2 Tears	20+ Years	40	5	
		_	16.	Do you think your purchase represe	nts good value?
7.	How would you rank your woodwor	'king skills'?		Yes	No
	Simple	Advanced	17.	Would you recommend Grizzly Indu	strial to a friend?
	Intermediate	Master Craftsman	17.	Would you recommend anzziy indu	strai to a menu:
8.	What stationary woodworking tools	do you own? Check all that apply.		Yes	No
	g	20 year ann ann appry	18.	Would you allow us to use your name	e as a reference for Grizzly customers
	Air Compressor	Panel Saw	10.	in your area? Note: We never use	
	Band Saw Drill Press	Planer Power Feeder		,	
	Drum Sander	Radial Arm Saw		Yes	No
	Dust Collector	Shaper	19.	Comments:	
	Horizontal Boring Machine	Spindle Sander	19.	Comments	
	Jointer	Table Saw			
	Lathe Mortiser	Vacuum Veneer Press Wide Belt Sander			
					
	Other				
9.	How many of your woodworking ma	achines are Grizzly?			

FOLD ALONG DOTTED LINE	
	Place Stamp Here



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	Haladadaddaddhadaddhaddaddaddaddaddaddaddad	
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Street		
City	State	Zip